

AIChE®

Chicago Columns

Chicago Section e-newsletter

FEBRUARY 2008

Upcoming Events:

- > TODAY Feb 20- AIChE-Chicago Local Section Meeting
- > Feb 23- Dupage Engineers week
- > Feb 29- IIT Alumni Dinner
- > March 28- Student Regional Conference



AIChE Chicago February Meeting Notice

“Fluorescent Tagged Polymers Used in Industrial Water systems”
Walter Schaefer
Industry Technical Consultant
Nalco Company

Date: February 20, 2008 **Schedule:** 5:30-6:30 pm Social & Registration
 6:30-7:30 pm Dinner
 7:30-7:45 pm AIChE Announcements
 7:45-8:30 pm Presentation

Location: Holiday Inn Select
<http://www.naperselect.com/>
 1801 N Naper Blvd
 Naperville, IL 60563
 (630) 505-4900

Cost: Members - \$35
 Unemployed Members - \$15
 Non-Members - \$40
 Students - \$5

Dinner Choices: Salmon, Chicken Scaloppini, Roast Sirloin of Beef, & Portobello Wellington (veggie) with Bread Basket, Salad, Fresh Vegetables & Eli's Chicago Cheesecake!

Presentation Summary

Fluorescent tagging for improved process control is an approach that Nalco introduced three years ago to provide dosage control for process chemical additives used to reduce corrosion, fouling, and biological activity in water systems. Nalco named this new family of products: **3D TRASAR**. This technology involves the use of fluorescent polymers that are designed so that they are consumed at the same rate as the chemical additives being used in a process. The fluorescent tagging makes it possible to determine the amount of chemical active in the system by measuring the amount of fluorescent compound in the system using optical systems. The dynamics of the process change continuously and the amount of process chemicals needed must also be adjusted due to these changes. Consequently, being able to quickly assess the amount of active process chemicals in the system and optimize the additive flow makes it possible to improve the use of process chemicals. The more effective system monitoring minimizes the cost of process chemicals and also minimizes the corrosion, fouling and biological activity in the system. The author will describe the history of **3D TRASAR** development and provide several examples of industrial applications.

Biography:

Walter Schaefer received his Bachelor of Science degree from West Point in 1975, and after graduating he served in Army Air Defense Artillery and was stationed in Germany and the US. After military service he began working for Nalco in 1980. From 1980 till 1985 he worked in Nalco's Basic Industry Group which serves the Refining, Pulp & Paper, and Municipal industries. In 1985 he switched to Nalco's Utility Chemical Group serving the electric power generation industry in both fossil and nuclear facilities. In 1997 he transferred to Nalco's UNISOLV division where he worked as a district manager and a product manager. Then in 2001 he transferred to sales and worked with the Specialty Division Marketing, and in 2002 he began working exclusively on the development of 3D TRASAR technology. He is now a Technical Consultant for the Chemical Process Industry Strategic Business Unit for Nalco. He has presented papers at the Industrial Water Conference and published in Industrial Water World. He is married has two children and three grandchildren.

Chair's Corner: Make-up Assignments

Seems this past fall was a bit busier than I expected. My apologies for missing a few newsletters. Fortunately, I've been saving up your homework assignments. So, let's get right to the assignments.

Homework Assignment #3: This one is motivated by the outstanding high school outreach program at the 2007 Local Section Symposium (If you were there you know what I'm talking about, kudos to Alan Zagoria and his outreach team). Your assignment is to serve as a ChE ambassador for one day. Just find a group of K-12 students and tell them about our profession. If those kids on the street corner won't listen to you, then go to the outreach section of our webpage http://www.aiche-chicago.org/Student_Outreach. There you'll find example presentations, a speaker's kit and a host of other helpful resources. Most importantly, you'll find the contact info for Alan Zagoria who can guide you through any question or uncertainties you have.

Remember, they're just kids. For the most part they really appreciate the time you've taken to talk to them, except for those few that do bite.

Homework Assignment #4: Bring your boss to a meeting. This one is likely the hardest assignment of the year. However, a great opportunity to illustrate the technical and networking value of attending section meetings. The upcoming March meeting looks to be the perfect time to get this one done. Jerry Wilks appears to have secured Alejandro Granado the CEO of Citgo as the dinner speaker. (Similar to April being Student Month we're trying to start a new tradition of March being CEO Month.)

For those not brave enough to invite their boss, we will accept "bring a friend to a meeting" as an alternative solution, although only for half credit.

Homework Assignment #5: As most of you know, the Chicago section has had great success in hosting technical symposiums recently. Well, the folks at AIChE National have begun to notice. More specifically, they would like to see our little symposium expand and evolve into something like a Regional Meeting. Such meetings could bring additional value to the national membership, and they would like our Section to help develop and test this type of event.

Think of those who planned the first Annual Meeting or the first Spring Meeting, and the pride they must have felt to see these events grow and take on a life of their own. You have the opportunity to be part of something like that, to get in on planning what could be a historic event. So, that's your assignment. Volunteer to be part of the symposium planning committee. To do so, please contact Jeff Perl at jefferyperl@chichem.com.

Last week the committee had a meeting and selected Jeff as our leader. We also selected a tentative date (in September) and outlined the desired scope for this year (not quite a regional meeting yet, but about double the size of last year). Similar to previous years we are looking for high motivated and energetic individuals to coordinate publicity, logistics, student outreach and fundraising. However, given the larger scope and our attempt to include attendees from outside Chicago (the Midwest), a housing committee will be needed as well as an even greater effort toward publicity.

Concerning technical session organization, we are looking to name a few Area Chairs. These Area Chairs should have sufficient technical contacts to select session chairs/co-chairs and help these individuals recruit top quality speakers. Intentionally we have yet to select the technical areas for this year. The idea being that we would like the Area Chair volunteers to suggest the technical areas, based on their expertise. So, if you have some ideas and feel that you can coordinate 2-3 technical sessions on that topic, please indicate your interest by dropping a note to Jeff Perl (jefferyperl@chichem.com) before March 15.

Well those are your assignments. Sorry for putting so many in one month. The good news is that most have no due date. See you next month.

- Donald J. Chmielewski
AIChE Chicago Chair



Engineers Week Celebration 2008 at Illinois Institute of Technology Rice Campus in Wheaton, Illinois

AICHE-Chicago will have a display at this event. . Details on the event are given below. If you would like to participate some opening may still be available please contact Shannon Brown or e-mail us at aichechicom@aiche-chicago.org

Illinois Institute of Technology's (IIT) Rice Campus will host the 24th Annual DuPage Area Engineers Week this February. Part of National Engineers Week, this fun and educational celebration of engineering features the Engineers Week Expo on Saturday, February 23, from 11 a.m. to 3:30 p.m., and the annual Speaker's Forum on Thursday, February 21, at 6:30 p.m.. This year's theme is "Engineered in Illinois," highlighting the many innovations of Illinois engineers, with a particular focus on sustainability and green buildings.

The Dupage Area Engineers Week Expo features a series of interactive displays designed to enhance children's interest in math, science and engineering. Volunteers from engineering societies, business, government and education donate their time each year to create fun, hands-on activities and demonstrations that allow young people to experience and explore the many fields of engineering. Exhibits are aimed at middle-school age students, but are fun and educational for people of all ages.

One of the more popular demonstrations is cryogenics, in which items are dropped into a liquid that can freeze an object within seconds. New exhibitors this year include SCARCE, DuPage County's environmental education arm; robotics from IIT's Mechanical Engineering Department; and architectural exhibits, including models, photos, and other forms. "Scientific demonstrations like these have an amazing effect on the children and create lasting memories that make them want to learn", says Dr. Robert Carlson, Director of IIT's Rice Campus.

The Speaker's Forum on February 21 will feature Jim Patchett and his team from Conservation Design Forum in Elmhurst. It begins at 6:30 p.m. with snacks and networking, followed at 7:15 p.m. by the presentation and questions. Learn more about the Conservation Design Forum on the web at: <http://www.cdfinc.com/> .

This year, the DuPage Area Engineers Week is partnering with Chicago Architecture Today (<http://www.chicagoarchitecturetoday.com/>) in hosting the Midwest Creative Architecture Competition. Entries will be on public display at the IIT Rice Campus from February 13 – March 1, including showing off the winners at the Engineers Week Expo on February 23. The Midwest Creative Architecture Competition awards ceremony will be held at Rice Campus on March 1. More contest details available online at: <http://www.chicagoarchitecturetoday.com/contests.htm#table29> .

All Engineers Week events are free and open to the public, and will take place at Illinois Institute of Technology's Rice Campus at 201 East Loop Road in Wheaton.



AIChE Chicago History

Due to this years centennial celebration we will be posting a AIChE Chicago History series. This is the first of the series.

Chicago Section History

The first preliminary meetings were held on September 13th and October 21st, 1924 in the Chemists Club Room at the City Club in downtown Chicago. A petition to form a section was submitted to National on October 29 and the first organizing meeting was held November 25th,

There were nine members in attendance. The National Council unanimously approved the application for a Chicago Section on December 15, 1924 and all national members within a 150 mile radius of Chicago were made members of the Section. Those members within a 30 mile radius were asked to pay Section dues. The Chicago Section was the first section in AIChE.

The first regular meeting of the Section was held on January 16, 1925 at the Western Society of Engineers office with six members present. A motion passed that a copy of the Petition of Chicago Members for a local section be included in the minutes.

Petition of the Chicago Members of the AIChE for a local section dated October 29, 1924

"To the Council of AIChE. We, the undersigned members of the AIChE, do hereby petition the Council for its approval of the formation at Chicago, IL of a Local Section, in accordance with the proposed Amendment to the Constitution of the Institute, as set forth on page 12 of Bulletin No. 25 – the Proceedings of the Fourteenth Semi-Annual Meeting.

Respectfully Submitted,

Dr. Edward Gudeman	Lewis I. Birdsall	W. A. Converse	E. E. Follin	G. M. Davidson
Frank Bachmann	Herbert N. McCoy	W. L. Gomery	D. M. Flick	Arthur Gillaudew
Wm. Hoskins	B. B. Freud	Glenn H. Pickard	F. M. Mohlman	H. S. Barnard
H. McCormack	O. H. Wurster	L. M. Tolman	J. W. Bodman	F. L. Dunlap
Garrett B. James	Walter B. Brown	W. D. Richardson	C. F. Hagedorn	B. G. Klugh
E. F. Buchanan	F. D. Dodge			

Initially, dues were \$3 per year (1925 dollars). The grandfather of the Chicago Section is Harry McCormack, a founder of the section and head of the Chemical Engineering department at the Illinois Institute of Technology.





CORNER

YPAB CHAIR CORNER

An MBA, Is it worth it?

- S. Thomas King

Young engineers are enthusiastic about beginning their new careers and are on the constant lookout for new tools to use to do their jobs more effectively. Among those are the Six Sigma Green belt, PE certification, Project management certification, and the last and final the MBA. Many are posed with the questions: ***Is it worth it? When should I do it? Why should I do it?*** It seems like more and more professionals are graduating from MBA programs and it does not carry the amount of merit that it used to. However, Is the MBA worth obtaining? Crain's Chicago Business Magazine (2007) interviewed recruiters from 4 top Chicago based companies. The general consensus was that someone with an MBA is worth about 5 more years of work experience as compared to someone who doesn't have an MBA. Also, an MBA shows a person is committed to educating themselves further than the average person. Recruiters state that they put more value into a persons graduate business education if they worked for 2-5 years prior to enrolling into an MBA program. This gives the MBA student the experience they need to fully grasp the concepts taught in graduate business school and the maturity to implement the tools. Forbes Magazine (2007) showed that MBA tuition is one of the most variable and that tuition can range from \$30K to over \$100K for the whole program. This is mainly dependent on the ranking of the school. Weather or not your employer has a tuition reimbursement program will be a significant factor on which school you can attend. If an MBA is worth an engineer to pursue highly depends on how you plan to apply it in the future. Its best to consider how the tools you can use in an MBA program will help you throughout your career and what specialization in that program would be the most useful in your career path. MBA can give you expertise to launch your own business, pursue a career in project management, finance and strategic planning, management, among others. Young engineers have defined who they are by obtaining an undergraduate education in engineering and by gaining a few years of work experience. An MBA can further diversify your education and define who you are by gaining auxiliary tools in business not learned by most in an undergraduate engineering program.

PARTICIPATION

The YPAB has some ambition plans next. Please make sure to let your interest be known and participate. Please e-mail AICHE communications aichechicom@aiche-chicago.org with your interest and recommendations.

THANKS

The YPAB would like to formally thank Noelle Patno and Abbott for work organizing a tour for YPAB . Noelle Patno would also like to thank the attendees and organizers:

Thank you to the AICHE members for attending the tour of Abbott's GPRD area. Please send me any feedback you have and whether you would like to share some of your experience in a few words or as part of an article for inclusion in an AICHE newsletter. I hope you enjoyed it and learned a great deal.

Thank you to Jody Hammond, Jeff Cross, Daryl Sauer, Russell Judge, and Phil Hajduk for educating the AICHE group about how Abbott characterizes the vast number of drug candidates.

Thanks,
Noelle



NOMINATIONS REQUESTED FOR

The Ernest W. Thiele award is sponsored by BP and recognizes the outstanding contributions to our profession by a Midwest region chemical engineer. This award was established by the AIChE Chicago Section and is presented annually to a Midwest region AIChE member. This internationally recognized award consists of an engraved plaque and \$1000 honorarium presented at our sectional meeting.

Nomination forms and additional information can be obtained from the Thiele Committee Chair.

Thank You for your recent nominations and this years Thiele award recipient will be announced soon. One of the highest honors a distinguished chemical engineer can receive is our Chicago Section Thiele award. Please consider nominating a deserving engineer for this prestigious award.

Jim Simnick
BP Amoco Complex, J-8
150 W. Warrenville Road
Naperville, IL 60566

Further information at: <http://www.aiche-chicago.org/>

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Chicago AIChE Reaches Out to Young Students

by Amanda Goddard, Piper Howell, Alan Zagoria

The American Chemical Society (ACS) recently sponsored a Chemistry Day at the Illinois Institute of Technology on October 20th. As part of the “Many Faces of Chemistry” theme, AIChE created a poster to introduce kids to chemical engineering. The purpose was to show how chemical engineering work compares with that of a chemist and the available career possibilities. Footage was used from last year’s Chem E Car competition and a display was made to help kids relate engineering to their everyday life; in this case cooking was used to demonstrate the concepts of heat transfer, mass transfer, fluid mechanics, and kinetics. The kids ranged in age from 5 years all the way up to seniors in high school. There were a lot of great questions coming from many curious and interested students. In addition, there were a few parents there who are putting on a “Science is Fun” night at their school and asked for something similar to be presented for them. Overall it was a great opportunity to interact with kids and excite them about all the possibilities of a career in science. The AIChE booth was conceived, executed, and manned by **Amanda Goddard and Piper Howell** of UOP.



There were many other booths with a number of demonstrations and hands-on activities geared toward attracting kids to science. Some of these included “invisible crystals”, lotion and cosmetic making along with many others.

The AIChE Chicago Section has materials available for anyone to take into the classroom (<http://www.iche-chicago.org/speakerskit.htm>) and is always looking for help in developing and presenting displays at major events. The next major event is National Engineers Week (mid February).

For information on how to participate, contact Alan Zagoria (alan.zagoria@uop.com).

AIChE Chicago Voices— What are local section members are doing and saying? In response to the YPAB tour:

Great job, I thought Abbott was a perfect host and the presentations were very well done.

Personally, I try to attend any professional organization sponsored tours I can. I wish this were done more often these days, so I truly commend Abbott for the investment in time and effort. I also saw Abbott went beyond the call to pick up two IIT students at the North Chicago train station - that says a lot.

I hope you/Abbott do this again. Whatever area is chosen to showcase, I believe I will make every effort to attend and learn something new.

Thank you for representing AIChE at the IEC Banquet . Attendees from AIChE:

Shannon Brown - Ambitech

Reza Mostofi - UOP

Azita Ahmadzadeh

Rich Symns -Ambitech. Jan Symns Noelle Patno - Abbott

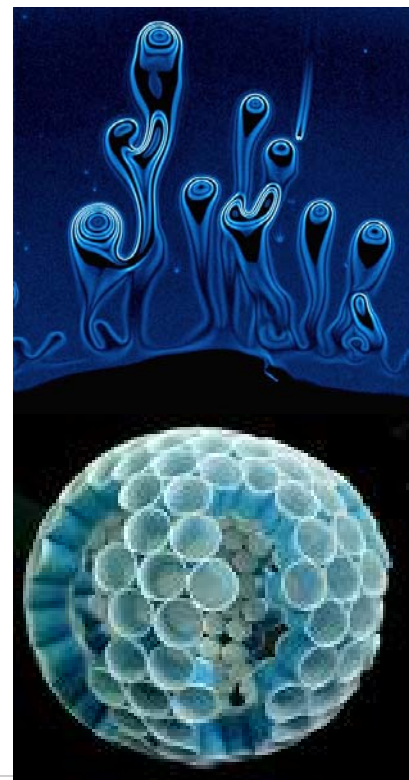
Ellen Kloppenborg, Kirsten Reimann -IIT

Congratulations to Kevin Taylor

Kevin Taylor of Warren, Mich., has been selected to receive an IEEE-USA Professional Achievement Award. Please join us in congratulating him for his accomplishments and thanking him for his help in AIChE.

Calendar of Events

February 20,2008	AIChE-Chicago Local Section meeting. See Page 1
February 23,2008	AICHE's DuPage E-Week display at IIT's Wheaton campus. It is on Saturday Feb 23 from 11 – 3:30.
February 29,2008	IIT Alumni Dinner –Friday, Feb 29th, 5-8pm, Pritzker Club
March 2008	AICHE-Chicago Local Section Meeting. Mid March-Details to be determined.
March 28-29	Regional Student Conference – Akron OH; March 28th – 29th
April 6-10, 2008	2008 Spring National Meeting New Orleans, LA
November 16-21, 2008	2008 Annual Meeting (AIChE 100th official commemoration) Philadelphia Marriott & Pennsylvania Convention Center Philadelphia, PA
April 11-12	Fundamentals (FE) and Professional (PE) Engineer Exam Dates are: 2008 FE and PE Exam Dates PE April 11 FE April 12 PE October 24 FE October 25 More info at: http://www.ncees.org/exams/schedules/ Contact State of Illinois for application materials: http://www.idfpr.com/dpr/apply/pe.asp
Fall 2008	IEC Awards Banquet ACS Chemistry Day AIChE Chicago Symposium



“Art without engineering is dreaming; Engineering without art is calculating.”

- Steven K. Roberts



We want you for AIChE-Chicago!

We need your help!

How many opportunities can you find to learn project management, delegation and leadership skills for free? Becoming an officer in the Chicago Section of AIChE is such an opportunity. While you're learning new skills, your local network grows. Just about all of us are either undergoing a career change, contemplating a career change, or are wondering if our career will be changed for us. Volunteering with AIChE is a way to add skills and accomplishments to your resume.

aichechicom@aiche-chicago.org

<http://www.aiche-chicago.org/volunteerrequest.htm>



SUBMITTING ARTICLES TO AICHE COLUMNS

We are now initiation a regular Newsletter and are welcoming people to e-mail any material they would like to appear on the newsletter. These can be job postings, advertisements for upcoming committee meetings, articles, general advertisements or anything else you may want to submit. To submit material e-mail your material to aichechicom@aiche-chicago.org with "newsletter article request" as a subject heading.



AICHE Publicity Committee

	Academic (non-AICHE)		Company		Recruiters	
	Per Month	Per Year	Per Month	Per Year	Per Month	Per Year
Advertisements (3X3)	100	450	150	675	N/A	N/A
Half-Page (~7"x 4.5")	280	1260	420	1890	N/A	N/A
Job Posting (Size?)	50	225	100	450	250	N/A
Special Sizing	Contact Publicity Committee					

-For the purchase of a year ad, customers have the option of changing

-They are not stuck with the same

-Student and AICHE Member Re-

